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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/776,004

Applicant(s)

YACH ET AL.

Examiner

Robert M. Timblin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

The applicants' amendment, filed 19 October 2006, has been received, entered into the record and considered.

The Examiner acknowledges and thanks the Applicant for indicating the typographical error as to the mismatched reference numbers of Leonetti and Weinstein. Accordingly, the following 102(e) rejection has been corrected to identify Leonetti to be U.S. Patent 6,771,951.

### *Response to Amendment*

Claims 1 and 15 have been amended. Accordingly, claims 1-2 and 4-20 are pending prosecution.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 2 and 4 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Leonetti**, (hereinafter **Leonetti**, US 6,771,951).

Regarding claim 1, **Leonetti** teaches apparatus for a radio communication system, (see column 2, lines 25 – 26 “...a wireless cellular and personal communication system...”) having a network part that maintains at least a network-copy of a first database [ PD - 118] containing data and a mobile node that maintains at least a mobile-copy of the first database [110] containing data (See column 3, lines 59 – 61 “The PDC 108 contains a personal database (PD) 118 that contains the storage of the personal database information.” And see column 4 lines 49 – 52 “The interrogation requests initiates the process of ascertaining the correspondence of the personal information database in the subscriber’s mobile terminal 110 and the PD 118 contained within the PDC 108.”);

the data of the network-copy and the mobile-copy of the first database, respectively, correspond when the network-copy and the mobile-copy of the first database are in match with one another (See column 5, lines 4 – 8 “...teaches a method of insuring that an active database, such as that embodied in the subscriber’s mobile terminal 110, and a secondary database, such as the PD 118 contained within the PDC 108, are concurrent.”),

said apparatus for selectably altering the data of at least one of the network-copy and the mobile-copy of the at least the first database to place the network-copy and the mobile-copy in match with each other (See column 5, lines 10 – 12 “The modified record and the active database virtual checksum is communicated to the secondary database.” This alters the data in the other database, putting them in match with each other.), said apparatus comprising:

a hash generator embodied at the mobile node and adapted to receive representations of a substantially complete copy of at least the mobile-copy of the at least the first database, said hash generator forming a hash value from said substantially complete copy of the representations provided thereto (See column 4, lines 60 – 62 “The comparison of single checksums can be used

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in one embodiment to indicate if changes have been made to the entire database.), a hash value formation by the hash generator being triggered when the network-copy first data base and the mobile-copy of the first data base are suspected of being out of synchronization with each other (abstract, col. 2 line 26-34, and col. 4 line 60-67; determining changes that have been made);

the hash value for communication to the network part to determine whether the network-copy and the mobile-copy are in match with one another (See column 4, lines 56 – 59 “The checksum for the personal database contained in the subscriber mobile terminal 110 is compared with the calculated checksum for the PD 118 contained within the PDC 108.”); and

a content retriever embodied at the mobile node, said content retriever for retrieving data from the mobile-copy of the at least the first database upon detection of determination that the network-copy and the mobile-copy are out of match, the data retrieved by said content retriever for communication to the network part, to be used to match [mirrors] the network-copy and the mobile-copy theretogether. (See column 5, lines 12 – 15 “The secondary database record is modified and a virtual checksum for the entire secondary database is calculated to ensure that the secondary database mirrors the active database.” The content retriever is inherent, since the content is obviously retrieved in order to be modified.)

Regarding claims 2, **Leonetti** additionally shows said hash generator generates the hash values [interrogated] of a copy of at least the mobile-copy of the at least first database responsive to an external triggering event [outgoing or incoming call], occurrence of which is detectable at the mobile node. (See column 2, lines 27 – 32 “In a preferred embodiment, the personal database information contained within the subscribers mobile terminal or handset is interrogated

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during the initial phase of an outgoing or incoming wireless telephone call to ascertain if there have been any changes made to the personal database.”)

Regarding claim 4, **Leonetti** additionally teaches said hash generator generates first-type hashes [entire database checksum] upon detection of an external triggering event [outgoing or incoming call], indications of occurrence of which is detectable at the mobile node (See column 4 lines 52- 56 “One sample embodiment of the process is the technique of calculated numerical values that uniquely identify the database information known as checksum and well known in the art of database management.” and see column 2, lines 27 – 32 “In a preferred embodiment, the personal database information contained within the subscribers mobile terminal or handset is interrogated during the initial phase of an outgoing or incoming wireless telephone call to ascertain if there have been any changes made to the personal database.”); and wherein said hash generator generates second-type hashes responsive to determination of mismatch of the first-type hashes, generated by said hash generator, with network-calculated values (See column 4, lines 62 – 65 “If the indications are that changes have been made, then checksums for the separate parts of the personal database can be calculated and compared to the checksums for the separate arts of the remote personal database.” The separate calculation is an example of a second-type hash.)

Regarding claim 5, **Leonetti** additionally teaches the data maintained at the network-copy and the mobile-copy of the at least the first database is comprised of data records, each data record formed of fields including at least a first key field and at least a first record field, and wherein the second-type hashes [checksum of the record] selectably generated by said hash generator are formed of values of the at least the first key field. (See column 5, lines 8 – 10 “The

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checksum of a modified database record is incorporated into a virtual checksum for the entire active database.”)

Regarding claim 6, **Leonetti** additionally teaches the determination that the network-copy and the mobile-copy are out of match is made responsive to values of the second-type hashes [checksum of the modified database record] formed of the values of the at least the key field. (See column 5, lines 8 – 10 “The checksum of a modified database record is incorporated into a virtual checksum for the entire active database.”)

Regarding claim 7, **Leonetti** additionally teaches the data retrieved by said content retriever comprises both the at least the first key field [virtual checksum] and the at least the first record field. (See column 5, lines 10 – 12 “The modified record and the active database virtual checksum is communicated to the secondary database.”)

Regarding claim 8, **Leonetti** teaches a further improvement of apparatus for the network part also for selectably altering the data of at least one of the network-copy and the mobile-copy of the at least the first database (see column 5, lines 12 – 15 “The secondary database record is modified...”), said apparatus comprising:

a determiner adapted to receive values of the hash generated by said hash generator, said determiner for determining whether the values of the hash correspond with locally-generated values (See column 4, lines 65 – 67 “In this manner, and efficient search and determination of what changes have made to a personal database can be ascertained...” and see column 5, lines 4 – 8 “...teaches a method of insuring that an active database, such as that embodied in the

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subscriber's mobile terminal 110, and a secondary database, such as the PD 118 contained within the PDC 108, are concurrent."); and

a requestor coupled to said determiner to receive indications of determinations made thereat, said requestor selectably for requesting additional information associated with the mobile-copy of the at least the first database (See column 4, lines 62 – 65 "If the indications are that changes have been made, then checksums for the separate parts of the personal database can be calculated and compared to the checksums for the separate arts of the remote personal database." The separate calculation is an example additional information requested.)

Regarding claim 9, **Leonetti** additionally teaches the hash generated by said hash generator is selectably of a first hash-type and at least a second hash-type, and wherein the locally-generated values with which said determiner compares the hash are correspondingly selectably of a first hash-type and a second hash-type (See column 4, lines 60 – 65, showing the two different types of hashes that can be selected – either for the entire database, or individual records.)

Regarding claim 10, **Leonetti** additionally teaches the additional information requested by said requestor comprises a request for the mobile node to deliver hash information of the second hash-type to the comparator (See column 4, lines 62 – 65 "If the indications are that changes have been made, then checksums for the separate parts of the personal database can be calculated and compared to the checksums for the separate arts of the remote personal database." The separate calculation is an example of a second-type hash.)



Regarding claim 11, **Leonetti** additionally teaches the data maintained at the network-copy and the mobile-copy of the at least the first database is comprised of data records (See column 4, lines 11 – 19 showing different data records maintained in the database) and wherein the additional information requested by said requester comprises a request for the mobile node to deliver values of at least portions of the data records. (See column 4, lines 6 – 9 showing that the values are sent upon request.)

Regarding claim 12, **Leonetti** teaches a comparator adapted to receive the values of the at least the portions of the data records responsive to the request therefor to the mobile node, said comparator for comparing the values with corresponding values of the network-copy of the at least the first database. (See column 4, lines 62 – 65 “If the indications are that changes have been made, then checksums for the separate parts of the personal database can be calculated and compared to the checksums for the separate arts of the remote personal database.” The separate calculation is an example of a second-type hash.)

Regarding claim 13, **Leonetti** teaches a database value updater coupled to said comparator, said database value updater selectably operable responsive to comparisons made by said comparator to alter at least one data record of a selected one of the mobile-copy and the network-copy of the at least the first database. (See column 5, lines 12 – 13 “The secondary database record is modified...”)

Regarding claim 14, **Leonetti** teaches database value updater operates pursuant to a selected conflict resolution protocol. (See column 5, lines 13 – 15 “...and a virtual checksum for the

entire secondary database is calculated to ensure that the secondary database mirrors the active database.” This secondary database checksum is an example of conflict resolution protocol, to make sure that the changes now make the updated database correspond to the active database.)

Regarding claim 15, **Leonetti** teaches a method of communication in a radio communication system, (see column 2, lines 25 – 26 “...a wireless cellular and personal communication system...”)

having a network part that maintains at least a network-copy first database [ PD - 118] containing data and a mobile node that maintains at least a mobile-copy first database [110] containing data (See column 3, lines 59 – 61 “The PDC 108 contains a personal database (PD) 118 that contains the storage of the personal database information.” And see column 4 lines 49 – 52 “The interrogation requests initiates the process of ascertaining the correspondence of the personal information database in the subscriber’s mobile terminal 110 and the PD 118 contained within the PDC 108.”);

the data of the network-copy and the mobile-copy of the first database, respectively, correspond when the network-copy and the mobile-copy of the first database are in match with one another (See column 5, lines 4 – 8 “...teaches a method of insuring that an active database, such as that embodied in the subscriber’s mobile terminal 110, and a secondary database, such as the PD 118 contained within the PDC 108, are concurrent.”),

said method for selectably altering the data of at least one of the network-copy and the mobile-copy of the at least the first database to place the network-copy and the mobile-copy in match with each other (See column 5, lines 10 – 12 “The modified record and the active database

virtual checksum is communicated to the secondary database.” This alters the data in the other database, putting them in match with each other.), said method comprising:

generating a first hash value in the mobile node from a complete copy of the mobile-copy of the first data base when the network-copy and the mobile copy are suspected of being out of the first data base when the network-copy and the mobile copy are suspected of being out of synchronization with each other (col. 4 line 60-67);

selectably sending the first hash value from the mobile node to the network part, the first hash value being representative of the mobile-copy of the first database (See column 4, lines 60 – 62 “The comparison of single checksums can be used in one embodiment to indicate if changes have been made to the entire database.);

comparing, at the network part, the first hash value sent during said operation of selectably sending with corresponding network-copy of the first hash value (See column 4, lines 56 – 59 “The checksum for the personal database contained in the subscriber mobile terminal 110 is compared with the calculated checksum for the PD 118 contained within the PDC 108.”); and

selectably requesting additional information [another checksum for separate parts] regarding the mobile-copy first database responsive to comparisons made during said operation of comparing the first hash value. (See column 4, lines 62 – 65 “If the indications are that changes have been made, then checksums for the separate parts of the remote personal database can be calculated and compared to the checksums for the separate parts of the remote personal database.”)

Regarding claim 16, **Leonetti** additionally teaches the additional information requested during said operation of selectably requesting comprises second hash information from the

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mobile node to the network part, the second hash information also representative of the mobile copy of the at least the first database. (See column 4, lines 62 – 65 “If the indications are that changes have been made, then checksums for the separate parts of the remote personal database can be calculated and compared to the checksums for the separate parts of the remote personal database.”)

Regarding claim 17, **Leonetti** additionally teaches sending the second hash information from the mobile node to the network part (See column 4, lines 49 - 52); comparing, at the network part, the second hash information sent during said operation of sending the second hash information with corresponding network-copy second hash information (See column 4, lines 62 – 65 “If the indications are that changes have been made, then checksums for the separate parts of the remote personal database can be calculated and compared to the checksums for the separate parts of the remote personal database.”); and

selectably requesting at least portions of the mobile-copy [modified database record] of the at least the first database responsive to comparisons made during said operation of comparing the second hash information (See column 5, lines 8 – 10, “The checksum of the modified database record is incorporated into a virtual checksum for the entire active database.”)

Regarding claim 18, **Leonetti** additionally teaches the operations of delivering the at least the portions of the mobile-copy to the network part (See column 5, lines 10 – 13 “The modified record and the active database virtual checksum is communicated to the secondary database.”), comparing the portions of the mobile copy delivered during said operation of delivering with corresponding portions of the network-copy of the at least the first database (see column 4, lines

62 – 65 “If the indications that changes have been made, then checksums for the separate parts of the personal database can be calculated and compared to the checksums for the separate parts of the remote personal database.”), and selectably causing overwriting of the portions of a selected one of the network-copy and the mobile-copy responsive to comparisons made during said operation of comparing the portions of the mobile-copy. (See column 5, lines 12 – 13 “The secondary database record is modified...”.)

Regarding claim 19, **Leonetti** additionally teaches the selected one of the network-copy and the mobile-copy of which the portions thereof are selectably caused to be overwritten is selected according to a conflict resolution scheme. (See column 5, lines 13 – 15 “...and a virtual checksum for the entire secondary database is calculated to ensure that the secondary database mirrors the active database.” This secondary database checksum is an example of conflict resolution protocol, to make sure that the changes now make the updated database correspond to the active database.)

Regarding claim 20, **Leonetti** additionally teaches the operation of creating a change-history by indicating overwriting of the portions selectably caused during said operation of selectably causing. (See column 4, lines 62 – 64 “If the indications are that changes have been made...” This shows that some change history necessarily would have to be made – which eventually causes the overwriting of the records determined to be different.)

*Response to Arguments*

Applicant's arguments filed 4/9/2007 have been fully considered but they are not persuasive.

The Applicant contends on pages 7-9 that Leonetti does not anticipate creating or the use of hash values. The Examiner respectfully disagrees given the following:

While Leonetti fails to explicitly mention “hash” in his disclosure, its use and functionality are still described and sufficiently taught. The reason for this conclusion is that “hash” and “checksum” may be known in the art to be synonymous. For example, A Google search of “hash checksum” reveals a first hit result (i.e. [www.accuhash.com/what-is-checksum.html](http://www.accuhash.com/what-is-checksum.html) filed with this response) that explicitly states that check sum and hash vale are synonymous on page 1. Further, Applicant’s disclosure states the functions of a hash generator include, for instance, computation of check sums as well as hash function computations. Therefore, it is not out of question to associate the claimed hash value with Leonetti’s checksum.


Leonetti also describes their checksum as a calculated numerical value to uniquely identify database information (e.g. in col. 2. line 37-41). The comparison of checksums can used to indicate database changes and determination of what changes have been made (col. 2 line 42-54). Furthermore, the act of interrogating to determine *if* there have been changes at each call is sufficient to describe suspecting data being out of synchronization (i.e. each call may cause a change in the database so it would be logical to check and ascertain if a change has been made).

*Conclusion*


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Robert M. Timblin



Patent Examiner AU 2167  
6/15/2007



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